

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

INVENTOR(S): Masahiro IWADARE  
Title: FAST CALCULATION  
APPARATUS FOR CARRYING  
OUT A FORWARD AND AN  
INVERSE TRANSFORM  
Application Number: 10/642,968  
Filing Date 08/19/2003  
Examiner: C. Ngo  
Art Unit: 2124

**SUPPLEMENTAL REISSUE DECLARATION UNDER 37 C.F.R. §1.175**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

I, Masahiro Idaware, declare that:

1. My residence, post office address and citizenship is stated below next to my name.
2. I believe I am the original, first and sole inventor of the subject matter described and claimed in my U.S. Patent 5,218,561 and in the foregoing specification for which a reissue patent is sought on the invention entitled FAST CALCULATION APPARATUS FOR CARRYING OUT A FORWARD AND AN INVERSE TRANSFORM.
3. I have reviewed and understand the contents of the above-identified specification, including the claims.
4. I acknowledge the duty to disclose information which is material to examination of the application in accordance with 37 C.F.R. §1.56(a).
5. I believe U.S. Patent No. 5,218,561 ("the '561 patent") is wholly or partly inoperative or invalid by reason of my claiming more than I had the right to claim in the patent.

6. At least one error upon which this reissue is based was failing to limit the forward transform of original claims 1-6 and the inverse transform of original claims 7-12 to a modified discrete cosine transform.

7. All errors that are being corrected up to the time of the filing of this Supplemental Declaration in this reissue application arose without any deceptive intention on my part.

WHEREFORE, I pray that I may be allowed to surrender the original Letters Patent 6,054,872 and do hereby offer same.

I hereby appoint Stephen A. Bent, Reg. No. 29,768; David A. Blumenthal, Reg. No. 26,257; William T. Ellis, Reg. No. 26,874; John J. Feldhaus, Reg. No. 28,822; Peter G. Mack, Reg. No. 26,001; Brian J. McNamara, Reg. No. 32,789; Sybil Meloy, Reg. No. 22,749; George E. Quillin, Reg. No. 32,792; Bernhard D. Saxe, Reg. No. 28,665; Charles F. Schill, Reg. No. 27,590; Richard L. Schwaab, Reg. No. 25,479; Harold C. Wegner, Reg. No. 25,258; Glenn Law, Reg. No. 34,371, Beth A. Burrous, Reg. No. 35,087, and Marc K. Weinstein, Reg. No. 43,250 as my attorneys with full power of substitution and revocation to prosecute this application and to transact all business in the U.S. Patent and Trademark Office connected herewith, and request that all correspondence be sent to FOLEY & LARDNER, 3000 K Street, N.W., Suite 500, Washington, DC 20007-5109 at (202) 672-5300.

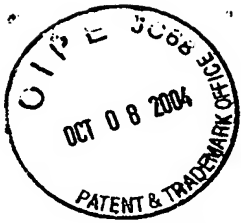
The undersigned petitioner declares further that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

**Masahiro Iwadare**

Signature: Masahiro Iwadare Date: Oct. 7/04

Residence: c/o NEC Corporation, 7-1, Shiba 5-chome, Minato-ku, Tokyo, Japan

Post Office Address: Same as above Citizenship: Japan



Atty. Dkt. No. 069974-0140

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Masahiro IWADARE  
Title: FAST CALCULATION APPARATUS  
FOR CARRYING OUT A  
FORWARD AND AN INVERSE  
TRANSFORM  
Application Number: 10/642,968  
Filing Date: 08/19/2003  
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**CERTIFICATE UNDER 37 C.F.R. § 3.73(b)**

Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

NEC CORPORATION, certifies that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of an assignment from the inventor of the patent identified above. The assignment was recorded in the U.S. Patent and Trademark Office at Reel 5781, Frame 056 on July 12, 1991 and a copy thereof is attached. The undersigned, Hideyuki Ogata, is empowered to sign this certificate on behalf of the assignee, NEC Corporation.

NEC CORPORATION

Date: October 7, 2004

By: [Signature]  
Hideyuki Ogata  
General Manager  
NEC Corporation  
Intellectual Property Licensing Division  
Intellectual Asset Operations Unit

WN-1095  
2-151662

U.S. Rights — Sole or Joint

RECORDED  
PATENT & TRADEMARK OFFICE

# Assignment

JUL 12 91

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each undersigned inventor has sold and assigned, and by these presents hereby sells and assigns, unto

name and  
address of  
assignee

NEC Corporation  
7-1, Shiba 5-chome, Minato-ku,  
Tokyo, Japan

(hereinafter ASSIGNEE) all right, title and interest for the United States, its territories and possessions in and to his invention relating to

title of  
invention

"FAST CALCULATION APPARATUS FOR CARRYING OUT  
A FORWARD AND AN INVERSE TRANSFORM"  
as set forth in his United States Patent Application

check one

☐ executed concurrently herewith  
☐ executed on \_\_\_\_\_  
☒ Serial No. 07/712,888 filed June 12, 1991

in and to said United States Patent Application including any and all divisions or continuations thereof and in and to any and all Letters Patent of the United States which may issue on any such application or for said invention, including any and all reissues or extensions thereof, to be held and enjoyed by said ASSIGNEE, its successors, legal representatives and assigns to the full end of the term or terms for which any and all such Letters Patent may be granted as fully and entirely as would have been held and enjoyed by the undersigned had this Assignment not been made;


Each of the undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all such Letters Patent to said ASSIGNEE, its successors or assigns in accordance herewith;

Each of the undersigned warrants and covenants that he has the full and unencumbered right to sell and assign the interests herein sold and assigned and that he has not executed and will not execute any document or instrument in conflict herewith;

Each of the undersigned further covenants and agrees that at any time upon request of said ASSIGNEE, its successors, legal representatives or assigns he will communicate to said ASSIGNEE, its successors, legal representatives or assigns all information known to him relating to said invention or patent application and that he will execute and deliver any papers, make all rightful oaths, testify in any legal proceedings and perform all other lawful acts deemed necessary or desirable by said ASSIGNEE, its successors, legal representatives or assigns to perfect title to said invention, to said application including divisions and continuations thereof and to any and all Letters Patent which may be granted therefor or thereon, including reissues or extensions, in said ASSIGNEE, its successors, or assigns or to assist said ASSIGNEE, its successors, legal representatives or assigns in obtaining, reissuing or enforcing Letters Patent of the United States for said invention;

Each of the undersigned hereby grants the firm of FOLEY & LARDNER, SCHWARTZ, JEFFERY, SCHWAAB, MACK, BLUMENTHAL & EVANS the power to insert in this Assignment any further identification which may be necessary or desirable to comply with the rules of the U.S. Patent and Trademark Office for recordation of this Assignment.

names and  
signatures  
of inventors

Masahiro Iwadare  date 06/28/91  
Name: MASAHIRO IWADARE

\_\_\_\_\_  
Name: \_\_\_\_\_ date \_\_\_\_\_

\_\_\_\_\_  
Name: \_\_\_\_\_ date \_\_\_\_\_

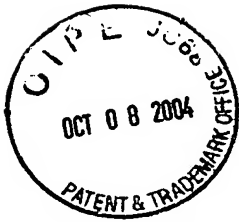
names and  
signatures  
of witnesses

Tomotoshi Nakai date 06/28/91  
Name: TOMOTOSHI NAKAI

Mutsuji Asano date 06/28/91  
Name: MUTSUJI ASANO

Note: *Prima facie* evidence of execution may optionally be obtained by execution of this

REF 5781 FRANK 056



Atty. Dkt. No. 069974-0140

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**CONSENT OF ASSIGNEE TO APPLICATION FOR REISSUE OF  
U.S. PATENT NO. 5,218,561**

Commissioner for Patents  
Box: REISSUE PATENT APPLICATION  
Alexandria, Virginia 22313-1450

Dear Sir:

NEC Corporation, assignee of U.S. Patent No. 5,218,561, hereby consents to the accompanying application for reissue of U.S. Patent No. 5,218,561. The undersigned, Hideyuki Ogata, is empowered to sign the Consent of Assignee on behalf of NEC Corporation.

NEC CORPORATION

Date: October 7, 2004

By: [Signature]  
Hideyuki Ogata  
General Manager  
NEC Corporation  
Intellectual Property Licensing Division  
Intellectual Asset Operations Unit